

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 2 of 23

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A recommended item presentation method, comprising the steps of:

(a) receiving access logs for viewing/purchasing items by a plurality of clients from an item provider server which provides items to the clients through a network, converting the access logs into access log maps suitable for a recommended item presentation processing, and storing the access log maps, wherein the access log maps include a list of item identifiers and their distances for each client identifier or a list of client identifiers and their distances for each item identifier;

(b) receiving and storing item rating values indicating levels of preference of ~~clients~~ a requesting client regarding specific items from the ~~clients~~ requesting client;

(c) receiving a recommended item presentation request from ~~one of the clients~~ requesting client;

(d) producing a recommended item list for the client who issued the recommended item presentation request, ~~according to~~ using the item rating values as user preference estimating factor information indicating a preference of the client and the access log maps as analysis source information to be used in selecting recommendation items to be included in the recommended item list; and

(e) transmitting the recommended item list to the requesting client who issued the recommended item presentation request.

2. (Previously presented) The method of claim 1, wherein the distances are given by processing information readable from each access log that contains a number of accesses made to each item or date and time of a latest access to each item.

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 3 of 23

3. (Currently amended) The method of claim 2, wherein the step (d) includes the steps of:

(d1) extracting a group of highly rated items of the requesting client given by a list of item identifiers of a prescribed number of items from a top in the list of item identifiers and their rating values for each client identifier or a list of item identifiers of those items for which the item rating values are greater than a prescribed value;

(d2) extracting a group of related clients given by a list of client identifiers stored in the access log map for each item identifier contained in the group of highly rated items extracted by the step (d1);

(d3) narrowing down the group of related clients extracted by the step (d2);

(d4) extracting a group of related items given by a list of item identifiers stored in the access log map for each client identifier contained in the group of related clients narrowed by the step (d3); and

(d5) obtaining the recommended item list by narrowing down the group of related items extracted by the step (d4).

4. (Original) The method of claim 3, wherein the step (d3) narrows down the group of related clients by rearranging the group of related clients in a descending order of a number of accesses with respect to the group of highly rated items extracted by the step (d1) and setting a prescribed number of clients from a top of a rearranged group of related clients as a new group of related clients, and the step (d5) narrows down the group of related items by rearranging the group of related items in a descending order of a number of accesses from the new group of related clients obtained by the step (d3) and setting a prescribed number of items from a top of a rearranged group of related items as the recommended item list.

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 4 of 23

5. (Currently amended) A recommended item presentation method, comprising the steps of:

(a) receiving and storing access log collecting target client data indicating those clients who are targets for collecting access logs for viewing/purchasing items by a plurality of clients from an item provider server which provides items to the clients through a network, and those clients who are not targets for collecting the access logs from the item provider server;

(b) receiving the access logs for the plurality of clients from the item provider server, extracting only the access logs of those clients who are targets for collecting the access logs from the access logs received from the item provider server according to the access log collecting target client data stored by the step (a), converting only the extracted access logs into access log maps suitable for a recommended item presentation processing, and storing the access log maps, wherein the access log maps include a list of item identifiers and their distances for each client identifier or a list of client identifiers and their distances for each item identifier;

(c) receiving a recommended item presentation request from ~~one of the clients~~ a requesting client;

(d) if the requesting client is a target, then producing a recommended item list for the requesting client who issued the recommended item presentation request, according to the access log maps; and

(e) transmitting the recommended item list to the requesting client who issued the recommended item presentation request.

6. (Currently amended) The method of claim 5, wherein the step (c) receives a client identifier of the requesting client and a list of item identifiers of items accessed by the requesting client, along with the recommended item presentation request, and the step (d) produces the recommended item list also according to the list of item identifiers received by the step (c).

Appln. No. Serial No. 09/997,502

Amdt. Dated 06/30/2006

Third Response in Appln, Reply to Office Action of 3/30/2006

Page 5 of 23

7. (Currently amended) The method of claim 5, further comprising the steps of:

(f) storing the access logs for those clients who are not targets for collecting the access logs separately from the access log maps for those clients who are targets for collecting the access logs, according to the access log collecting target client data stored by the step (a);

wherein if the requesting client is not a target, then producing the recommended item list for the requesting client according to the access logs ~~for the client~~ stored by the step (f).

8. (Currently amended) The method of claim 5, further comprising the step of:

(g) receiving and storing item rating values indicating levels of preference of the clients regarding specific items from the clients;

wherein the step (d) produces the recommended item list for the requesting client also according to the item rating values ~~for the client~~ stored by the step (g).

9. (Previously presented) The method of claim 5, wherein the distances are given by processing information readable from each access log that contains a number of accesses made to each item or date and time of a latest access to each item.

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 6 of 23

10. (Currently amended) The method of claim 9, wherein the step (d) includes the steps of:

(d1) extracting a group of highly rated items of the requesting client given by a list of item identifiers of a prescribed number of items from a top in the list of item identifiers and their rating values for each client identifier or a list of item identifiers of those items for which the item rating values are greater than a prescribed value;

(d2) extracting a group of related clients given by a list of client identifiers stored in the access log map for each item identifier contained in the group of highly rated items extracted by the step (d1);

(d3) narrowing down the group of related clients extracted by the step (d2);

(d4) extracting a group of related items given by a list of item identifiers stored in the access log map for each client identifier contained in the group of related clients narrowed by the step (d3); and

(d5) obtaining the recommended item list by narrowing down the group of related items extracted by the step (d4).

11. (Original) The method of claim 10, wherein the step (d3) narrows down the group of related clients by rearranging the group of related clients in a descending order of a number of accesses with respect to the group of highly rated items extracted by the step (d1) and setting a prescribed number of clients from a top of a rearranged group of related clients as a new group of related clients, and the step (d5) narrows down the group of related items by rearranging the group of related items in a descending order of a number of accesses from the new group of related clients obtained by the step (d3) and setting a prescribed number of items from a top of a rearranged group of related items as the recommended item list.

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 7 of 23

12. (Currently amended) A recommended item presentation method, comprising the steps of:

(a) receiving access log collecting target client data indicating those clients who are targets for collecting access logs for viewing/purchasing items by a plurality of clients from an item provider server which provides items to the clients through a network, and those clients who are not targets for collecting the access logs from the item provider server, sending access log transmission requests to those clients who are targets for collecting the access logs, and sending access log transmission stopping requests to those clients who are not targets for collecting the access logs;

(b) receiving the access logs from those clients who are targets for collecting the access logs, converting the access logs into access log maps suitable for a recommended item presentation processing, and storing the access log maps, wherein the access log maps include a list of item identifiers and their distances for each client identifier or a list of client identifiers and their distances for each item identifier;

(c) receiving a recommended item presentation request from a requesting client who is a target one of the clients who are targets;

(d) producing a recommended item list for the requesting client who issued the recommended item presentation request, according to the access log maps; and

(e) transmitting the recommended item list to the requesting client who issued the recommended item presentation request.

13. (Original) The method of claim 12, further comprising the step of:

(f) receiving and recording a list of item identifiers of items to be delivered from the item provider server, along with an item delivery request.

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 8 of 23

14. (Previously presented) The method of claim 12, further comprising the steps of:
(g) incrementing a received log count of each client who is a target when an access log is received from each client who is a target; and

(h) regularly counting the received log count of each client who is a target and transmitting a counted received log count of each client who is a target to the item provider server.

15. (Original) The method of claim 14, further comprising the step of:
(i) paying a log providing fee from the item provider server to each client who provided the access logs according to the received log count of each client transmitted at the step (h).

16. (Previously presented) The method of claim 12, wherein the distances are given by processing an information readable from each access log that contains a number of accesses made to each item or date and time of a latest access to each item.

17. (Currently amended) The method of claim 12, wherein the step (c) receives a client identifier of the requesting client and a list of item identifiers of items accessed by the requesting client, along with the recommended item presentation request, and the step (d) produces the recommended item list also according to the list of item identifiers received by the step (c).

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 9 of 23

18. (Original) The method of claim 17, wherein the step (d) includes the steps of:
(d1) extracting a group of related clients given by a list of client identifiers of those clients who are accessing each item whose item identifier is contained in the list of item identifiers received by the step (c), according to the access log maps stored by the step (b);
(d2) narrowing down the group of related clients extracted by the step (d1);
(d3) extracting a group of related items given by a list of item identifiers of items accessed by each client whose client identifier is contained in the group of related clients narrowed by the step (d2), according to the access log maps stored by the step (b); and
(d4) obtaining the recommended item list by narrowing down the group of related items extracted by the step (d3).

19. (Original) The method of claim 18, wherein the step (d2) narrows down the group of related clients by rearranging a group of related clients in a descending order of a number of accesses with respect to items whose item identifiers are contained in the list of item identifiers received by the step (c) and setting a prescribed number of clients from a top of a rearranged group of related clients as a new group of related clients, and the step (d4) narrows down the group of related items by rearranging the group of related items in a descending order of a number of accesses from the new group of related clients obtained by the step (d2) and setting a prescribed number of items from a top of a rearranged group of related items as the recommended item list.

Appln. No. Serial No. 09/997,502
Amtd. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 10 of 23

20. (Original) The method of claim 18, wherein the step (d2) narrows down the group of related clients by rearranging a group of related clients in a descending order of a number of accesses with respect to items whose item identifiers are contained in the list of item identifiers received by the step (c) and setting a prescribed number of clients from a top of a rearranged group of related clients as a new group of related clients, and the step (d4) narrows down the group of related items by rearranging a group of items contained in the recommended item list in a descending order of a number of accesses from the new group of related clients obtained by the step (d2) and setting a prescribed number of items from a top of a rearranged group of items as a new recommended item list.

21. (Currently amended) A recommended item presentation device, comprising:
a first unit configured to receive access logs for viewing/purchasing items by a plurality of clients from an item provider server which provides items to the clients through a network, convert the access logs into access log maps suitable for a recommended item presentation processing, and store the access log maps, wherein the access log maps include a list of item identifiers and their distances for each client identifier or a list of client identifiers and their distances for each item identifier;

a second unit configured to receive and store item rating values indicating levels of preference of clients a requesting client regarding specific items from the clients requesting client;

a third unit configured to receive a recommended item presentation request from ~~one of the clients~~ the requesting client;

a fourth unit configured to produce a recommended item list for the client who issued the recommended item presentation request, ~~according to~~ using the item rating values as user preference estimating factor information indicating a preference of a user and the access log maps as analysis source information to be used in selecting recommendation items to be included in the recommended item list; and

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 11 of 23

a fifth unit configured to transmit the recommended item list to the client who issued the recommended item presentation request.

22. (Previously presented) The device of claim 21, wherein the distances are given by processing an information readable from each access log that contains a number of accesses made to each item or date and time of a latest access to each item.

23. (Currently amended) The device of claim 22, wherein the fourth unit extracts a group of highly rated items of the requesting client given by a list of item identifiers of a prescribed number of items from a top in the list of item identifiers and their rating values for each client identifier or a list of item identifiers of those items for which the item rating values are greater than a prescribed value; extracts a group of related clients given by a list of client identifiers stored in the access log map for each item identifier contained in the group of highly rated items as extracted; narrows down the group of related clients as extracted; extracts a group of related items given by a list of item identifiers stored in the access log map for each client identifier contained in the group of related clients as narrowed; and obtains the recommended item list by narrowing down the group of related items as extracted.

24. (Original) The device of claim 23, wherein fourth unit narrows down the group of related clients by rearranging the group of related clients in a descending order of a number of accesses with respect to the group of highly rated items as extracted and setting a prescribed number of clients from a top of a rearranged group of related clients as a new group of related clients, and narrows down the group of related items by rearranging the group of related items in a descending order of a number of accesses from the new group of related clients as obtained and setting a prescribed number of items from a top of a rearranged group of related items as the recommended item list.

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 12 of 23

25. (Currently amended) A recommended item presentation device, comprising:
a first unit configured to receive and store access log collecting target client data indicating those clients who are targets for collecting access logs for viewing/purchasing items by a plurality of clients from an item provider server which provides items to the clients through a network, and those clients who are not targets for collecting the access logs from the item provider server;

a second unit configured to receive the access logs for the plurality of clients from the item provider server, extracting only the access logs of those clients who are targets for collecting the access logs from the access logs received from the item provider server according to the access log collecting target client data stored by the first unit, convert only the extracted access logs into access log maps suitable for a recommended item presentation processing, and store the access log maps, wherein the access log maps include a list of item identifiers and their distances for each client identifier or a list of client identifiers and their distances for each item identifier;

a third unit configured to receive a recommended item presentation request from ~~one of the clients who are targets~~ a requesting client who is a target;

a fourth unit configured to produce a recommended item list for the requesting client who issued the recommended item presentation request, according to the access log maps; and

a fifth unit configured to transmit the recommended item list to the requesting client who issued the recommended item presentation request.

26. (Currently amended) The device of claim 25, wherein the third unit receives a client identifier of the requesting client and a list of item identifiers of items accessed by the requesting client, along with the recommended item presentation request, and the fourth unit produces the recommended item list also according to the list of item identifiers received by the third unit.

Appln. No. Serial No. 09/997,502

Amdt. Dated 06/30/2006

Third Response in Appln, Reply to Office Action of 3/30/2006

Page 13 of 23

27. (Currently amended) The device of claim 25, further comprising:

a sixth unit configured to store the access logs for those clients who are not targets for collecting the access logs, separately from the access log maps for those clients who are targets for collecting the access logs, according to the access log collecting target client data stored by the first unit;

wherein the third unit is configured to receive a recommended item presentation request from ~~one of the clients~~ a client who are not targets is not a target; and

wherein the fourth unit produces a recommended item list for the client who is not a target according to the access logs stored by the sixth unit ~~when the client is one of these clients who are not targets~~ for collecting the access logs.

28. (Currently amended) The device of claim 25, further comprising:

a sixth unit configured to receive and store item rating values indicating levels of preference of the clients regarding specific items from the clients;

wherein the fourth unit produces the recommended item list for the requesting client also according to the item rating values for the client stored by the sixth unit.

29. (Previously presented) The device of claim 25, wherein the distances are given by processing information readable from each access log that contains a number of accesses made to each item or date and time of a latest access to each item.

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 14 of 23

30. (Currently amended) The device of claim 29, wherein the fourth unit extracts a group of highly rated items of the requesting client given by a list of item identifiers of a prescribed number of items from a top in the list of item identifiers and their rating values for each client identifier or a list of item identifiers of those items for which the item rating values are greater than a prescribed value; extracts a group of related clients given by a list of client identifiers stored in the access log map for each item identifier contained in the group of highly rated items as extracted; narrows down the group of related clients as extracted; extracts a group of related items given by a list of item identifiers stored in the access log map for each client identifier contained in the group of related clients as narrowed; and obtains the recommended item list by narrowing down the group of related items as extracted.

31. (Original) The device of claim 30, wherein the fourth unit narrows down the group of related clients by rearranging the group of related clients in a descending order of a number of accesses with respect to the group of highly rated items as extracted and setting a prescribed number of clients from a top of a rearranged group of related clients as a new group of related clients, and narrows down the group of related items by rearranging the group of related items in a descending order of a number of accesses from the new group of related clients as obtained and setting a prescribed number of items from a top of a rearranged group of related items as the recommended item list.

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 15 of 23

32. (Currently amended) A recommended item presentation device, comprising:
a first unit configured to receive access log collecting target client data indicating those clients who are targets for collecting access logs for viewing/purchasing items by a plurality of clients from an item provider server which provides items to the clients through a network, and those clients who are not targets for collecting the access logs from the item provider server, send access log transmission requests to those clients who are targets for collecting the access logs, and send access log transmission stopping requests to those clients who are not targets for collecting the access logs;

a second unit configured to receive the access logs from those clients who are targets for collecting the access logs, convert the access logs into access log maps suitable for a recommended item presentation processing, and store the access log maps, wherein the access log maps include a list of item identifiers and their distances for each client identifier or a list of client identifiers and their distances for each item identifier;

a third unit configured to receive a recommended item presentation request from ~~one of the clients who are targets~~ a requesting client who is a target;

a fourth unit configured to produce a recommended item list for the requesting client who issued the recommended item presentation request, according to the access log maps; and

a fifth unit configured to transmit the recommended item list to the requesting client who issued the recommended item presentation request.

33. (Original) The device of claim 32, further comprising:

a sixth unit configured to receive and record a list of item identifiers of items to be delivered from the item provider server, along with an item delivery request.

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 16 of 23

34. (Previously presented) The device of claim 32, further comprising:
a sixth unit configured to increment a received log count of each client who is a target when an access log is received from each client who is a target; and
a seventh unit configured to regularly count the received log count of each client who is a target and transmit a counted received log count of each client who is a target to the item provider server.

35. (Previously presented) The device of claim 32, wherein the distances are given by processing an information readable from each access log that contains a number of accesses made to each item or date and time of a latest access to each item.

36. (Currently amended) The device of claim 32, wherein the third unit receives a client identifier of the requesting client and a list of item identifiers of items accessed by the requesting client, along with the recommended item presentation request, and the fourth unit produces the recommended item list also according to the list of item identifiers received by the third unit.

37. (Original) The device of claim 36, wherein the fourth unit extracts a group of related clients given by a list of client identifiers of those clients who are accessing each item whose item identifier is contained in the list of item identifiers received by the third unit, according to the access log maps stored by the second unit; narrows down the group of related clients as extracted; extracts a group of related items given by a list of item identifiers of items accessed by each client whose client identifier is contained in the group of related clients as narrowed, according to the access log maps stored by the second unit; and obtains the recommended item list by narrowing down the group of related items as extracted.

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 17 of 23

38. (Original) The device of claim 37, wherein the fourth unit narrows down the group of related clients by rearranging a group of related clients in a descending order of a number of accesses with respect to items whose item identifiers are contained in the list of item identifiers received by the third unit and setting a prescribed number of clients from a top of a rearranged group of related clients as a new group of related clients, and narrows down the group of related items by rearranging the group of related items in a descending order of a number of accesses from the new group of related clients as obtained and setting a prescribed number of items from a top of a rearranged group of related items as the recommended item list.

39. (Original) The device of claim 37, wherein the fourth unit narrows down the group of related clients by rearranging a group of related clients in a descending order of a number of accesses with respect to items whose item identifiers are contained in the list of item identifiers received by the third unit and setting a prescribed number of clients from a top of a rearranged group of related clients as a new group of related clients, and narrows down the group of related items by rearranging a group of items contained in the recommended item list in a descending order of a number of accesses from the new group of related clients as obtained and setting a prescribed number of items from a top of a rearranged group of items as a new recommended item list.

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 18 of 23

40. (Currently amended) A computer usable medium having computer readable program codes embodied therein for causing a computer to function as a recommended item presentation device, the computer readable program codes include:

a first computer readable program code for causing said computer to receive access logs for viewing/purchasing items by a plurality of clients from an item provider server which provides items to the clients through a network, convert the access logs into access log maps suitable for a recommended item presentation processing, and store the access log maps, wherein the access log maps include a list of item identifiers and their distances for each client identifier or a list of client identifiers and their distances for each item identifier;

a second computer readable program code for causing said computer to receive and store item rating values indicating levels of preference of clients regarding specific items from the clients;

a third computer readable program code for causing said computer to receive a recommended item presentation request from ~~one of the clients~~ a requesting client;

a fourth computer readable program code for causing said computer to produce a recommended item list for the requesting client who issued the recommended item presentation request, ~~according to~~ using the item rating values as user preference estimating factor information indicating a preference of a user and the access log maps as analysis source information to be used in selecting recommendation items to be included in the recommended item list; and

a fifth computer readable program code for causing said computer to transmit the recommended item list to the requesting client who issued the recommended item presentation request.

Appln. No. Serial No. 09/997,502
Amdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 19 of 23

41. (Currently amended) A computer usable medium having computer readable program codes embodied therein for causing a computer to function as a recommended item presentation device, the computer readable program codes include:

a first computer readable program code for causing said computer to receive and store access log collecting target client data indicating those clients who are targets for collecting access logs for viewing/purchasing items by a plurality of clients from an item provider server which provides items to the clients through a network, and those clients who are not targets for collecting the access logs from the item provider server;

a second computer readable program code for causing said computer to receive the access logs for the plurality of clients from the item provider server, extracting only the access logs of those clients who are targets for collecting the access logs from the access logs received from the item provider server according to the access log collecting target client data stored by the first computer readable program code, convert only the extracted access logs into access log maps suitable for a recommended item presentation processing, and store the access log maps, wherein the access log maps include a list of item identifiers and their distances for each client identifier or a list of client identifiers and their distances for each item identifier;

a third computer readable program code for causing said computer to receive a recommended item presentation request from ~~one of the clients who are targets~~ a requesting client who is a target;

a fourth computer readable program code for causing said computer to produce a recommended item list for the requesting client who issued the recommended item presentation request, according to the access log maps; and

a fifth computer readable program code for causing said computer to transmit the recommended item list to the requesting client who issued the recommended item presentation request.

Appln. No. Serial No. 09/997,502
Amtdt. Dated 06/30/2006
Third Response in Appln, Reply to Office Action of 3/30/2006
Page 20 of 23

42. (Currently amended) A computer usable medium having computer readable program codes embodied therein for causing a computer to function as a recommended item presentation device, the computer readable program codes include:

a first computer readable program code for causing said computer to receive access log collecting target client data indicating those clients who are targets for collecting access logs for viewing/purchasing items by a plurality of clients from an item provider server which provides items to the clients through a network, and those clients who are not targets for collecting the access logs from the item provider server, send access log transmission requests to those clients who are targets for collecting the access logs, and send access log transmission stopping requests to those clients who are not targets for collecting the access logs;

a second computer readable program code for causing said computer to receive the access logs from those clients who are targets for collecting the access logs, convert the access logs into access log maps suitable for a recommended item presentation processing, and store the access log maps, wherein the access log maps include a list of item identifiers and their distances for each client identifier or a list of client identifiers and their distances for each item identifier;

a third computer readable program code for causing said computer to receive a recommended item presentation request from ~~one of the clients who are targets~~ a requesting client who is a target;

a fourth computer readable program code for causing said computer to produce a recommended item list for the requesting client who issued the recommended item presentation request, according to the access log maps; and

a fifth computer readable program code for causing said computer to transmit the recommended item list to the requesting client who issued the recommended item presentation request.